

Section II. (REMARKS)

The pending claims in the application are 15-37.

Request for Continued Examination

A Request for Continued Examination under 37 CFR §1.114 is included herewith.

Supplemental Information Disclosure Statement

In compliance with the ongoing duty of disclosure imposed by 37 C.F.R. §1.56, applicant submits herewith a Supplemental Information Disclosure Statement and PTO Form PTO/SB/08a.

Amendment to the Claims

In view of the Affidavit under 37 CFR 1.131 submitted herewith, claims 15 and 36 have been amended to replace the transition phrase “consisting essentially of” with “comprising.” In addition, claims 15 and 36 have been amended to recite that the surfactant comprises at least one nonionic surfactant. Support for this amendment can be found at paragraph [0031].

No new matter has been added herein.

Rejection of Claims and Traversal Thereof

In the October 12, 2007 Office Action:

claims 15-23, 25-27, 30, 35 and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sehgal (U.S. Patent Application Publication No. 2004/0050406A1);

claims 24 and 28-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sehgal in view of De Young et al. (U.S. Patent No. 6,669,785);

claims 31-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sehgal (U.S. Patent Application Publication No. 2004/0050406A1) in view of Xu et al. (U.S. Patent

Application Publication No. 2003/0125225); and

claim 36 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sehgal in view of Hess et al. (U.S. Patent No. 6,627,588).

These rejections are traversed and reconsideration of the patentability of the pending claims is requested in light of the following remarks.

As set out in the applicants' Declaration, the filing date of the Sehgal CIP reference (10/620,895) is July 16, 2003. The applicants' Declaration attests to the fact showing conception and reduction to practice of the presently claimed invention prior to such earliest claimed July 16, 2003 date of the Sehgal CIP reference. Notably, the Sehgal Parent Application (10/197,384) is submitted herewith in the Supplemental IDS.

The applicants' Declaration thereby removes the Sehgal CIP reference as competent prior art. Since the Sehgal reference is cited as the primary reference in all four §103(a) rejections presented by the Examiner in the October 12, 2007 Office Action, and the rejections cannot stand on the secondary references alone, withdrawal of said rejections is respectfully requested.

Fees Payable

The fee of \$810.00 under 37 CFR 1.17(e) for the Request for Continued Examination is due and is being paid by Electronic Funds Transfer. Authorization is hereby given to charge any deficiency in applicable fees for this response to Deposit Account No. 13-4365 of Moore & Van Allen PLLC.

Conclusion

Claims 15-37 are now in form and condition for allowance. Favorable action is hereby requested. If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 286-8090 to discuss same.

Respectfully submitted,
MOORE & VAN ALLEN PLLC

Date: Dec. 3, 2007

By: _____



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re United States Patent Application of:	Docket No.:	020732-110.694
Applicant:	Examiner:	AHMED, Shamim
Application No.:	Art Unit:	1792
Date Filed:	Confirm. No.:	5492
Title:	Customer No.:	24239
COMPOSITION USEFUL FOR REMOVAL OF BOTTOM ANTI-REFLECTION COATINGS FROM PATTERNED ION- IMPLANTED PHOTORESIST WAFERS		

DECLARATION UNDER 37 CFR §1.131 IN U.S. PATENT APPLICATION NO. 10/807,858

**Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Sir:

MICHAEL B. KORZENSKI and THOMAS H. BAUM hereby declare:

1. THAT we are co-inventors of the subject matter disclosed and elected in United States Patent Application No. 10/807,858 filed March 24, 2004 in the names of Michael B. Korzenski and Thomas H. Baum and entitled, **"COMPOSITION USEFUL FOR REMOVAL OF BOTTOM ANTI-REFLECTIVE COATINGS FROM PATTERNED ION-IMPLANTED PHOTORESIST WAFERS,"** hereafter referred to as the "Application."
2. THAT the Application relates to compositions and processes for removing bottom anti-reflective coating (BARC) from a semiconductor substrate having said BARC materials thereon. The elected claims generally recite:

“A method of removing a bottom anti-reflection coating (BARC) layer from a substrate having same thereon, said method comprising contacting the substrate having the BARC layer thereon with an SCF-based removal composition comprising at least one SCF, at least one co-solvent, at least one etchant, and at least one surfactant, for sufficient time and under sufficient contacting conditions to substantially remove the BARC layer from the substrate.”

3. THAT we are aware that the Application has been examined by the United States Patent and Trademark Office and the claims of the Application have been rejected on various grounds including the disclosure of:
 - Sehgal (U.S. Patent Application Publication No. 2004/0050406) (hereinafter “the Sehgal CIP reference”) filed on July 16, 2003. The Sehgal CIP reference is a continuation-in-part of U.S. Application No. 10/197,384, filed July 17, 2002 (hereinafter “the Sehgal Parent Application”). The Sehgal Parent Application has a more limited disclosure than the cited Sehgal CIP reference.
3. THAT Exhibit A attached herewith includes true and exact copies of pages of Michael B. Korzenski’s laboratory notebooks, and that all concepts, experiments and acts disclosed on the laboratory notebook pages were conducted in the United States before the filing date of the Sehgal CIP reference cited hereinabove.¹
4. THAT all the dates have been blacked out on the attached laboratory notebook pages but all dates are prior to the date of July 16, 2003, which is the filing date of the Sehgal CIP reference; that information on the laboratory notebook pages that may not be in the public domain has been redacted; and that the attached laboratory notebook pages (Appendix A) disclose a method of removing a BARC layer from a substrate having same thereon, said method comprising contacting the substrate having the BARC layer thereon with an SCF-based removal composition comprising at least one SCF, at least one co-solvent, at least one etchant, and at least one surfactant. Thus, the combination of disclosures described herein, provide ample support for the presently claimed invention.
5. THAT we offer Exhibit A with this Declaration as evidence of the completion and possession of the cleaning compositions disclosed and claimed in the Application prior to the July 16, 2003 date of the Sehgal CIP reference.

¹ Notably, the acronym “3HF” is shorthand for triethylamine trihydrofluoride and the acronym “Surf 104” is shorthand for Surfynol 104, a non-ionic surfactant.

As a below-named declarant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

MICHAEL B. KORZENSKI

Date _____


THOMAS H. BAUM

Date 11-26-07

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re United States Patent Application of:)	Docket No.: 020732-110.694
Applicant: KORZENSKI, Michael B., et al.)	Examiner: AHMED, Shamim
Application No.: 10/807,858)	Art Unit: 1792
Date Filed: March 24, 2004)	Confirm. No.: 5492
Title: COMPOSITION USEFUL FOR REMOVAL OF BOTTOM ANTI-REFLECTION COATINGS FROM PATTERNED ION- IMPLANTED PHOTORESIST WAFERS)	Customer No.: 24239

DECLARATION UNDER 37 CFR §1.131 IN U.S. PATENT APPLICATION NO. 10/807,858

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

MICHAEL B. KORZENSKI and THOMAS H. BAUM hereby declare:

1. THAT we are co-inventors of the subject matter disclosed and elected in United States Patent Application No. 10/807,858 filed March 24, 2004 in the names of Michael B. Korzenski and Thomas H. Baum and entitled, "COMPOSITION USEFUL FOR REMOVAL OF BOTTOM ANTI-REFLECTIVE COATINGS FROM PATTERNED ION-IMPLANTED PHOTORESIST WAFERS," hereafter referred to as the "Application."
2. THAT the Application relates to compositions and processes for removing bottom anti-reflective coating (BARC) from a semiconductor substrate having said BARC materials thereon. The elected claims generally recite:

"A method of removing a bottom anti-reflection coating (BARC) layer from a substrate having same thereon, said method comprising contacting the substrate having the BARC layer thereon with an SCF-based removal composition comprising at least one SCF, at least one co-solvent, at least one etchant, and at least one surfactant, for sufficient time and under sufficient contacting conditions to substantially remove the BARC layer from the substrate."

3. THAT we are aware that the Application has been examined by the United States Patent and Trademark Office and the claims of the Application have been rejected on various grounds including the disclosure of:
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¹ Notably, the acronym "3HF" is shorthand for triethylamine trihydrofluoride and the acronym "Surf 104" is shorthand for Surfynol 104, a non-ionic surfactant.

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As a below-named declarant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


MICHAEL B. KORZENSKI

Date 11/28/07

THOMAS H. BAUM

Date _____

Docket No.: 020732-110.694
Appl. No.: 10/807,858

EXHIBIT A

60

Book No. _____ TITLE _____

From Page No. _____

SHE

Weld

Sample 104

- pressure 2.8 [] in [] min @ 3500 psi and 70°C

To Page No _____

Witnessed & Understood by me,

Date

Invented by

Recorded by

Date

TITLE _____

Book No. _____

From Page No. _____

3 HF
2 mg
TBA

A) - pump feed

to

into @ 1700 psi and 70°C

To P

Witnessed & Understood by me,

Date

Invented by

Recorded by

Date

